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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

May 5, 1989

Mr. T.G. Sheckels
Northern Division
Naval Facilities Engineering Command
Building 77-L, U.S. Naval Base
Philadelphia, PA 19112-5094

Dear Mr. Sheckels:

EPA has reviewed the documents entitled "Phase I Feasibility Study, Preliminary Development of Alternatives" and "Preliminary Risk Assessment" for the Brunswick Naval Air Station dated February 1989, prepared by E.C. Jordan Co., for the U.S. Department of the Navy. These documents were received by EPA on February 27, 1989. EPA recognizes that these are interim documents and not subject to Agency approval. By providing the following comments at this time, EPA is optimistic that the Phase II Feasibility Study, Final Risk Assessment, and other documents for selection and implementation for the remediation of these areas will enhance the process of remedy selection and implementation.

EPA would appreciate the benefit of the Navy's position with regard to these comments. Please provide a written response within 45 days of receipt of this letter. We recognize that these comments may not incorporate information contained in the document entitled "Draft Additional Sampling Plan, RI/FS Program", received by EPA on April 10, 1989. (Our comments on this document are forthcoming.) If you have any questions or have any concern regarding the request for a response in 45 days, please contact Charlotte Head of my staff, (617) 573-5785.

Phase I Feasibility Study, Preliminary Development of Alternatives

- The final version of the Feasibility Study document will require correlation and input from the Risk Assessment. Apparently time restrictions prevented that correlation in these initial preliminary submittals.

- EPA has recently developed guidance on estimating air emissions at Superfund sites. Volumes II and III of the guidance, "Estimation of Baseline Air Emissions at Superfund Sites" and "Estimating Emissions from Selected Remedial Activities" is available by contacting Dave Dunbar, PEI Associates Inc., 505 So. Duke St., Suite 503, Durham, NC, 27701.

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- Ambient air standards for lead are not included in the list of ARARS and are potentially applicable. The National Ambient Air Quality Standard for lead is 1.5 ug/m^3, calendar quarter average (40 CFR Part 50). The Main standard, which is more stringent, is 1.5 ug/m^3, 24-hour average (Chapter 110, Maine air pollution regulations.)

- Volatilization is noted as a disadvantage with respect to land spreading and composting. Air impacts should be given serious consideration. Estimates of emissions should be conducted.

- Metal emissions may preclude incineration given the stringency of the Maine ambient air lead standard.

- The potential ecological effects of proposed remedial actions must be considered in their evaluations. For example the impact on wetlands of groundwater pumping or diversion.

Preliminary Risk Assessment

- The biological characterization portion of the ecological Risk Assessment, particularly wetland characterization, requires a more thorough and complete analysis. Specific information and more detailed mapping regarding which wetland areas are impacted by specific waste sites is recommended. Delineation of wetlands on specific site maps would be helpful.

- Because of the presence of mercury, cyanide, and arsenic in leachate an surface water samples, additional evaluation of the contamination of the leachate, the movement of leachate to surface waters, and sediment and surface water samples in Mere Brook in depositional areas where leachate flow enters the brook is needed. In addition, further study of downstream cyanide contamination in Mere Brook is warranted.

- Evaluation of naturally occurring levels of contaminants such as arsenic is necessary to determine appropriate clean-up levels.

- An explanation for the omission of Site #7 from the Risk Assessment is requested.

- There are some concerns about selection of indicator chemicals:

  Groundwater: There are reference doses for both the cis- and trans-forms of 1,2-dichloroethylene. The lack of dose-response value should not be the reason for not choosing this chemical as contaminant of concern.

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Based on the presentation of toxicity profiles, it appears this compound is included for consideration as a chemical of concern. (P. 2-5, site 1&3 and P. 2-29)

Sediments: There is a reference dose available for chromium. It seems more appropriate to select chromium rather than zinc as the contaminant of concern. (P. 2-8, site 8)

Leachate: There are reference doses for chromium and cadmium. These two compounds should not be excluded from consideration as contaminants of concern. (P. 2-10)

- The following are concerns for risk characterization:

  a. Table 2-17: The carcinogens, BEHP, chloroform and methylene chloride should be assessed for non-carcinogenic effects because there are reference doses available for them.

  b. Tables 2-17 and 2-18: Depending upon the chemicals involved, the sum of the hazard index may be inappropriate. For noncarcinogens, if looking at only two systemic toxicants, it is more appropriate to use a RfD comparison.

- Comparison of Groundwater Data to Regulatory Standards:

  a. P. 2-72, second paragraph: The use of the term "oral carcinogen" is misleading. Cancer potency factor or reference doses developed by EPA are mostly from animal studies. In the animal studies, the chemical can be administered through oral or inhalation route. In this case, it simply means that the cancer potency factor was derived from oral route.

  b. P. 2-72, last paragraph: Please check and confirm if the unit of concentration for chromium at 45 mg/L (vs. ug/L) shown in Table 2-19 is correct. Also confirm if 700 ug/L is the correct concentration for site 8 as shown in Table 2-19.

  c. Table 2-19: The chemicals which are compared to MCLs in this table are not all indicator chemicals. It is recommended that only indicator chemicals be used in the comparison with their respective MCLs. If there are no MCLs, they should be compared to available Federal guidance or criteria. The comparison should have been done in the dose-response section.

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d. P. 2-74, second paragraph: Unit for lead should be ug/L rather than mg/L.

Again, should you have any questions regarding this matter, please contact Charlotte Head, (617) 573-5785.

Sincerely,

David M. Webster
Chief, Maine and Vermont Superfund

cc: Denise Messier, ME DEP
Commander G.D. Cullison, NASB
Ron Springfield